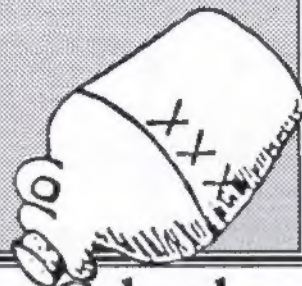


Club Repeaters W6RGG/R
147.24,(+), 444.200 (107.2 PL)



de President, WM2C

Ken's Pen

Setting a record in the CQ WW CW

A few months ago I did some analysis on what it would take to break the 80m CW single band record in the 1995 CQ WW CW Contest. I thought you might find this interesting reading. Breaking world records just doesn't "happen". It takes a lot of planning, and setting your goals is the first start.

The high CW score was submitted by NP4A (K1ZM op) in 1988. NP4A's score was on the order of 808,000 points, with 2240 Qs, 33z and 102 countries. This breaks down to an amazing 2.7 points per QSO (amazing from the Caribbean that is). Looking at the ratio, you get about 560 North American QSOs (2 points) and 1650 DX QSOs (3 points). Thus, 25% of his contacts were with North America, and 75% were with DX. I assume that the bulk of the DX was EU. Funny, the above percentages goes against what you would think for a country so close to the USA.

ON4UN had a great effort in '93, a score of around 650,000. John had around 2150 Qs, 34z, and 114 countries. IF he had been in 3-point land (SA, AF), he would have had the world record. Must be hard to be in 1-point land (EU).

1993 stats were interesting in other ways too. The highest 80m CW mult count ever posted by anyone, was by W3LPL... for a total of 151 mults,

(Ken's Pen, con't page 2, col 2)



Contest Calendar

de K2MM

June

17-18

All Asian DX, CW

24-25

Field Day

QST, May, p.133

July

8-9 IARU HF

QST Apr p. 110

8-9 CQWW VHF

QST June p. 113

19 VHF/UHF All-Band Sprint

QST June p. 113

29-30 RSGB IATA

QST June p. 113

August

5-6 YODX Test

CQ June

12-13 Great NM Chili

CQ June

19-20 SEANET 'SSB

CQ June

Field Day Saturday, June 24

Operating: 11a.m. to 6 p.m

Club Meeting: 2 o'clock

Barbecue Picnic: Noon to 3

All You Can Eat,\$6.00

Kids Half-Price

Families, Friends, Bring 'Em All

Directions on page 2, col 1.

Time again for our annual NCCC Field Day, Family barbecue, and June NCCC club meeting., All will be going full bore on Saturday, June 24 at K6ZM's station in Danville. Peggy Frazier welcomes all NCCC members and their families to use the station and facilities of her late husband, Phil Frazier, K6ZM. QSOs start at 11am, transmitters will be ready, waiting to go.

This looks like a banner year for radios, meaning lots of operating time for everyone. Steve, WB6MZQ Chief Organizer, plans on operating with 4 HF stations (FT1000D, TS440, TS930, IC736) and 2 VHF stations on 6, 2, and 432. Logging will be on computers, using the K1EA contest program. If you haven't been to this station before, it plays VERY well, and is a lot of fun to operate. Field day is the best time introduce your friends to contesting, learn some new skills, or teach some new tricks to the up-and-coming operators. Bring your family and friends, and come on over!

Food. Do we have food!? Chef Al, WR6R returns as master barbecuer. Al will feature his famous Polish dogs and marinated chicken. Also offered will be salads, veggies, desserts, chips, and soft drinks. Premium beer will be served at 50 cents each. See you there!

Ken WM2C

Directions to Field Day Family Bar-Be-Cue and Meeting Saturday, June 24

Field Day Site is Peggy Frazier's Place,
44 Toyon Terrace, Danville
(510) 834-9547

Southbound on Highway 680: Take the El Pintado exit, make a left under the freeway, make an immediate right onto El Rio (the hwy frontage road). Take El Rio and turn left on Toyon Terrace (there's a wood post with the name Frazier on it), go up to the top of the hill, follow parking directions.

Northbound on Highway 680: Take the El Cerro exit. Go right, and make an immediate left on El Pintado. At first left, turn onto El Rio (the hwy frontage road) and turn right on Toyon Terrace (there's a wood post with the name Frazier on it), go up to the top of the hill, follow parking directions.

RELEVANT ANNOUNCEMENT

Opportunity for fame and fortune for all NCCC'rs appears on page 8 of today's issue of the JUG. Sorry no extra copies are available so save your copy

All photos in this issue are taken by ISQ and are printed with his permission. Copies of these are available upon request or a stamped, self-addressed envelope. Do not send money.

The Northern California Contest Club

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Publisher, Maggie Troster, KC6NFE

The JUG is the journal of the NCCC, published monthly. Copies are mailed to members whose dues are up-to date. Send material for publication before last Monday of the month.

(Ken's Pen, con't from page 1) with around 118 countries, and 33 zones. The second highest MULT count was posted by HG73DX. Their MULTS were close, but a bit short of a MULT record. It was interesting to see that even a large M/M in EU didn't beat out the USA M/M on mults (it should).

Looking at all the S/O, M/S, and M/M scores on 80m CW, it seems that the bulk of the top people have around 2100 QSOs (and these are mostly EU scores). Only NP4A's record has ever broken the 2200 QSO barrier on 80m (and this was back in 1988!). MULTS seem to be on the rise beyond 1992 as compared to the 1988 record.

What first comes to mind is that I had assumed that 80m was now MORE of a critical band to have an effective antenna on, and a large contributor to your score. But there was NO increase in the number of 80m QSOs during 1988 to 1993. Was this due to the sunspot cycle and lack of 80m activity? Or are the 1993 QSOs not representative of what can be done on that band in the coming years?

Thus, it seems that the total number of QSOs on 80m has not changed over the years, but there is generally more activity world wide as found by the increasing MULT counts (Why ??)

Improved antennas may contribute to the increased MULT count, you would also think that the QSO volume would go up. It hasn't.

There have only been a very select few who have been able to combine the QSO volume with the MULT volume to make a truly great 80m score. And neither were in 3-point land. W3LPL had the mults, but not the QSOs. HG73DX also had the mults, but didn't have the QSOs and was in 1 point land. ON4UN was the only one with the QSO/MULT combination, but was in 1 point land (EU).

Geographical location will be critical for a world record. Since a majority of your 80m QSOs will come from EU, a location close to EU, though still in 3-point land, is the best location. This means that North-Western Africa is the best choice. The other main body of QSOs come from North America, so you need a good shot to NA also. While South America has good propagation to both locations, it is assumed that the African location is better by its sheer proximity to EU. You will need to work every barefoot European station with a long wire.

Limited Conclusions: To seriously break the 80m CW record, it seems you need to be in 3 point land. Period.

Playing with numbers, if you take the highest QSO total (NP4A), and the highest mult count (W3LPL), and assume a point value of 2.98 (typical from a 3-point QTH), then you just break the 1,000,000 barrier. Thus a maximum 80m effort should yield a new record on the order of 950,000 points.

All the top scores come from existing super stations. It hardly seems that a casual expedition can come close to these performances. While an expedition may be successful, a lot of antenna work will be required ahead of time (or you need some good luck and skill).

I still do not rule out the possibility of breaking the record from South America. It is very feasible, but a EU facing yagi (plus other antennas) will be important. That said, North-Western Africa seems like the place to smash it, and never look back. At least for the next 11 years ;-)

de K2MM

John's Jottings

This month's listing shows all the WPX scores submitted to the club. Our point total right now is just over 50 Meg, which is about 10 Meg behind where we were at this time last year. The difference no doubt is due to the fewer number of NCCC DXpeditions.

The listing has an additional column showing points per QSO. This is simply calculated from the QSO and PX numbers and the final score. It reflects the mixture of DX vs. domestic and high-band vs. low-band QSOs.

WW-Bob's score (K3EST operating from N6RO) shows an amazing 4.65 Pt/Q. Bob says it includes about 850 Qs on 40m, most of which were JAs. At 6 Pt/Q, this goes a long way towards explaining the high Pt/Q average.

If your score shows an unusually low Pt/Q average, make sure you've calculated your score correctly. The condensed announcement in QST gave confusing instructions for calculating score. Here's the scoop: QSOs with stations in the 48 states count zero points. With other North America stations (including Canada and the Caribbean), count 4 points per low-band and 2 points per high-band QSO. With stations on other continents, count 6 or 3 points per low- or high-band QSO. Low bands are 160, 80, and 40, and high bands, 20, 15, and 10.

AA6MC Vs. AG6D Horse Race

Dick/AA6MC and Bruce/AA6KX decided to operate Multi-Single from Dick's house this year, and they issued a head-to-head challenge to the perennial AG6D multi-op effort. (This was rather surprising considering Bruce's well-known views on the M/S category!) AG6D had remained undecided about whether to enter M/S or M/M, but the AA6MC challenge helped AG6D decide in favor of M/S at the last minute. (To be fair to Dick and Bruce, they thought AG6D had chosen M/M, so they didn't know their challenge had been accepted until the contest was over!)

The final result was very, very close. AG6D finished only 5 QSOs and 2 PXs ahead of AA6MC. In total score, though, the margin was bigger — 2.7 Meg vs. 2.5 Meg — owing to AG6D's higher Pt/Q average. This reflects AG6D's greater emphasis on 40m DX.

AG6D operator Ken/WM2C has prepared an excellent comparative analysis of the AA6MC and AG6D logs. Perhaps we'll see it soon in a future JUG. In any case, within-club challenges like this sure help with motivation, and the bottom line is more club points. Great idea, Dick.

Internet Update

An intriguing thread of discussion lately on CQ-CONTEST has been whether some of the contest material in QST should be moved into the NCJ. This was started by Randy Thompson,



K5ZD, who posed the question as a what-if. Because Randy works closely with the ARRL Contest Department (Randy wrote most of the last SS write-up), his speculation soon became a rumor that the League was planning this shift.

Most reactions were very negative. One major concern was that the much sought-after New Blood would be harder to recruit without as much exposure to contest write-ups. Some proponents thought moving some material from QST to the NCJ would result in better, more in-depth coverage.

As it stands, the ARRL apparently has no plans to do this. TV-Bob got our Director Brad/K6WR to contact QST Editor Mark/AA2Z, and the word is that there is no pressure in this direction. Randy's speculation, though, sure did stir things up for a while!

NCCC On-Line

Dick/AA6MC and Trey/WN4KKN have secured the Internet domain name KB.ORG on behalf of the NCCC. Dick is working towards firing up an NCCC "home page" on the World-Wide Web. If your on-line service supports it, try issuing the query, "whois kb.org". Nice KB'ing, guys, thanks!

NCCC Club Call

Ken/WM2C has secured the club call KE6UCF on behalf of NCCC. This is the first step in our attempt to get K6ZM for the club. Request for K6ZM will come at a future FCC gate.

Choosing Club-Focus Contests

The last meeting saw a lively discussion about which contests the NCCC should focus on in the coming year. That's not to say we discussed which contests to do, because the NCCC does 'em all! But you can't FOCUS on them all, else you'll have a very watery focus indeed!

CQP is our invariant starting point. Support for the November SweepStakes as our major event remained as solid as ever.

Two pieces of new data drove the debate about our secondary focus: (1) the 10-meter contest now has club competition, and (2) the ARRL DX Contest next year MAY allow DXpeditions to count towards the club score.

AA6KX pointed out how great it would be for the NCCC to win the first-ever 10m club competition. Others thought the 10m test would be a good way to get New Blood into the club via two-man multi-ops. Some speculated that the Left Coast stood a good chance at the bottom of the sunspot cycle. The reasoning was that F-layer skip would likely be scarce, and we'd likely get an even break — maybe even an advantage — if most of the propagation was sporadic-E. K3EST, however, thought we were nuts, and we were just asking to have our collective butt ionospherically kicked!

Because of the timing, choosing the ARRL DX test as our minor focus would probably mean not emphasizing WPX. But this hinges in part on whether the ARRL changes its rules to allow DXpeditions' scores to count for the club. There are rumors that this will happen, but it's by no means settled. It may also hinge on how well we do in this year's WPX. It'd sure feel a lot better going out a winner!

THIS MONTH'S SCORES

WPX/CW	QSOs	PXs	Total	Pt/Q
K3EST (at N6RO)	1100	450	2,300,000	4.65 S/O
NI6T	881	440	1,033,560	2.67 S/O
N6TV	665	334	639,276	2.88 S/O
AG7W (op N6IP)	526	268	528,764	3.75 S/O
AE0M	639	327	495,732	2.37 S/O
NF6S	499	312	469,872	3.02 LP
W6RGG (at N6RO)	625	418	410,058	1.57 20m
WA6AUE	418	270	257,040	2.28 40m
AB6YL	360	264	221,760	2.33 S/O
WU7Q (op W6REC)	314	245	127,400	1.66 QRP
AD6E	229	167	116,065	3.03 SOA
N6OJ	267	209	103,037	1.85 QRP
N6XI	160	125	53,125	2.66 S/O
KJ6DL	100	81	11,340	1.40 40m
WN4KKK (at N6TV)	31	30	1,140	1.23 S/O
KG6I	4	4	96	6.00 S/O
AG6D (+N4TQO,WM2C,K2MM)	1593	624	2,723,760	2.74 M/S

AA6MC (+AA6KX)	1588	622	2,513,502	2.54 M/S
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WPX/Phone	QSOs	PXs	Total	Pt/Q
WR6R/WH6	3203	798	9,907,968	3.88
K3EST	2400	775	4,900,000	2.63S/O
K6HNZ	1385	570	1,761,300	2.23
AE0M	780	379	855,782	2.89
KG6LF	999	483	772,317	1.60
AB6YL	519	348	409,944	2.27
W6BSY	585	316	286,296	1.5515m
AA6MC	420	304	241,984	1.90SOA
KD6UO	310	213	206,184	3.12SOA
N6IP	354	178	175,686	2.79
AA6YX	315	230	143,980	1.99 LP
NP4IW/6	353	258	135,450	1.49 20m
W6PYX	224	166	85,822	2.31 LP
KD6KKP	564	262	84,102	0.57 20m
WA8LLY/6	177	147	48,216	1.85 LP

P40V (ops AI6V,N7NG)	5705	1037	21,452,419	3.63 M/S
WV6U (+WA6TKV,KN6SO,W6REC)	1834	676	2,664,116	2.15 M/S
WM2C (+AD6E)	1271	522	1,574,352	2.37 M/S

Send Scores to:

John Zapisek, K2MM
10559 Sterling Bl.
Cupertino, CA 95014
408-446-9377
k2mm@maspar.com

Bulletin Board

→ de N6IP "I would like to thank the anonymous gift-giver who bought me the SS mug and pins from the ARRL. I'm not sure it truly was a gift, or simply a mistake on the part of the ARRL, but figure I'd take the optimistic, high road. One day after I received an SS mug from the ARRL with my (handwritten) address label, I got another one, with someone else's handwriting. A few days later, the same thing happened when the 100 QSO pins arrived.

I don't recognize the handwriting, but I appreciate the gesture. 73 & Thanks" Bob.

→ Dubs payable on verification. You remember. We printed witty ditty last month, asking that author identify himself. He did and we do.

Honors in verse,
To which we are not averse,
Go to B.W.,N6TV
He dashed off a line fine,
Blending rhyme so sublime
At Visalia in April, did he.



→ Chef WR6R, and Chief Organizer, WB6MZQ promise their second-to-none sausage supreme, plus chicken on the barby, and beaucoup other goodies not-to-be-missed. Peggy's Place is an ideal operating site and Peggy's warm welcome to the club each year make it a great day for ops and kids and YF's and friends. The equipment is first-rate, computerized, and accompanied by tutors if needed. The station and its availability to the NCCC for Field Day, have been established as a memorial to Peggy's husband Phil Frazier, K6ZM, well-known ham and contestor, highly regarded by all. The occasion is enriched by this dedication. It's a great day. Don't miss it.

Letter to VY1JA

de Dave Leeson, W6QHS

January JUG ran a letter from VY1JA asking for help in how to handle contest pile-ups. Dave's encouraging reply was so savvy and informative, "even experienced ops such as yourself" will be happy to learn so much Thanks Dave.

Hi, Jay!

I've received copies of your recent letters, and I wanted to write you this note of encouragement. Each time we've worked, I've been excited to find a real friend in the hubbub.

It is helpful to publicize the particular propagation you experience, so contesters can make better use of the best times. However, I don't think that prearranged schedules of operating by call districts can be kept firm, because too many folks won't get the message; but I do believe you can get the same effect by using some helpful pileup management techniques.

Most folks in the states have no idea what it's like to be on the receiving end of a large pileup, so they act as if they were the only one you can hear.

When I first went to Aruba to operate P4/V in a contest, Carl, AI6V, cautioned me that the hardest part was managing the huge pileups to keep up the rate. I observed the same thing from Rich, N6KT, and Trey, WN4KKN, when we operated together at EA9UK and HC8A.

Let me pass on a few things I've learned from them them on in the hope that you'll recognize that you're right at the edge of the fun zone, and will be able to crack the "sound barrier" to enjoy contests again. Your current concerns arise from unruly pileup behavior, but the same pileup population can be a source of real satisfaction to you when you get the hang of the unique contest techniques that even experienced operators such as yourself, fine helpful to working a satisfying rate.

As you've noticed, the ideal environment for rate is having only one or two new stations call you once each time you stand by; this is the optimum condition for high rate, and on the rare occasions that this happens you can sail along as



fast as you can talk and log (records are in the 200-400/hour range, depending on the length of the exchange, and a sustained rate of 100/hour will win Sweepstakes).

But as you have seen this ideal is the exception, and the usual situation is a giant pileup that sounds like nothing but noise, with impolite tail-enders making matters even worse. Each station thinks his is the only signal that stands out, and they all have trouble hearing you reply, so the whole thing can quickly deteriorate into an angry mess (no fun at all, as you have noted). But thanks to the tutoring of the experts, I've learned some techniques to whip the pileup into shape.

First, just as anything that slows you down even a little causes the pile quickly to grow too big to handle (especially what with packet announcements), keeping up a high rate keeps the pileup size limited and the complainers get their contact and move on. Operating from a DX location, I try to pick out one call (or at least a partial) on the first "pulse" of every pileup, and reply immediately with the exchange. Answer the loud stations first, the rest will hang in there and aren't loud enough to QRM you. If I need a fill on part of the call, I ask specifically for prefix or suffix. If there is QRM, I don't acknowledge it, just ask again for a repeat. Once you get this rhythm, the callers quickly learn that there is no use calling more than once. I don't answer any tail-enders directly; instead I note the call and call them after the one-call

pileup. This lets your response be heard in the quiet, so you control the rhythm to get the maximum rate. To save time, I convert phonetics to alpha form on the fly if I think the calling station can read me ok.

Pileup: roar...Quebec Hotel Sierra...roar

VY1JA: QHS, you're number 1029 B VY1JA 60 YU, your prefix please

W6QHS: whiskey six...Jay, you're 987 B W6QHS 52 SCV

VY1JA: W6, thanks, VY1JA

Pileup: roar...silence

VY1JA: (next call, etc.)

Ah, that's the easy part, but what about the bad actors? Well, we've concluded among us that, since the audience is different every few minutes, it does no good to try to instruct the pileup, or to announce any pre-arranged schedule of who gets worked when. The best thing you can do is stay consistent, ignoring extraneous comments and questions. Although I prefer to get a complete call, partial calls don't bother me, I just come back to the partial, give the exchange and ask the partial for a fill of suffix or prefix. It's almost better to guess at a random partial than to let the pileup go beyond one call.

Opinion is divided whether its better to use your own call to signal the end of every QSO (instead of "thanks" or whatever), but it's certain that you shouldn't go more than three QSO's without giving your call, particularly so you don't get the bigger stations tuning across and asking "what's your call?" only to find they've worked you before. You can alternate between phonetics and alpha-numerics to give your call, either way using tone of voice to signal you're ready for the next callers. Sometimes, I get so tongue-tied I just yell "next!" It's impolite for stations to ask for QSL info in a contest, but if someone asks I just say "QSL bureau" and keep going with the pileup.

The real hotshot ops like N6KT and WN4KKN can pick out two or more calls from each pileup, so they go right

(Letter Con't Page 6, Col 1)

(Letter con't from Page 5)

on from one QSO to the next without inviting the pileup to roar. They never say anything extraneous, because any break in rhythm drops the rate meter. This takes tremendous discipline and short term memory, especially if you are using a computer logging program, but it makes for world-class rates (that's why Rich's walls are covered with world-champion trophies going back over a decade!). Before computer logging, he would just write the calls or partials on down the log page and keep working them before he would start the pileup again by giving his call. As for me, I can often remember one additional call or partial, but typing in the exchange from the current contact sure tends to blot out the short-term memory.

Pileup: roar...alpha radio...echo alpha
nine uniform kilo...silence

HC8A: AR, you're 59-ten, your prefix

K1AR: Kilo one, you're 59-5

HC8A: K1, thanks...now EA9UK, you're 59-ten

EA9UK: 59-thirty-three

HC8A: Hotel Charlie 8 America

Pileup: roar

While the same techniques work for SSB or CW, on CW you're more likely to get whole calls, and you can use "nw" for "now" to engage a second station without setting off the pileup. If you want to work more than one station before starting up the pileup, stay away from saying "thank you" or giving your call until you've finished the additional QSOs, then be sure to give your call because some time has elapsed and new folks have tuned across the action.

Yeah, but what if, despite keeping up the rate with this rhythm, the pileup gets too big to manage, or they can't hear you answering? A first step is to go split, putting your signal out of the US band if on SSB. If you do, announce your listening frequency often ("U1" on CW, "up five" or "14155" on SSB). Don't split too much, and listen within a narrow bandwidth so others don't get QRM'd.

In contests (unlike DXing), going by

call districts is a bad last resort because each new listener has to get the message, so you get a much slower rate because with a pileup it's so hard to make understood what you're listening for. I make it a point to take only 5 calls from each district before moving on so folks won't get impatient; sometimes I go by ascending numbers and sometimes I try to go by propagation, but it's rarely successful and it makes people restless in a contest.

Instead, if the pileup is too big for split, just QSY to a different part of the same band without announcing it. The best operators will find you almost immediately, and the lids and QRMers will be left behind arguing with themselves. It takes almost no time to build up the rate again, since there are always folks tuning around. Move enough to make a difference, at least 10 kHz or so, or on SSB move to a different license-grade sub-band. If you want to keep to frequencies ending in 27 or 7, you can preprogram your radio. You'll know by watching your rate (and from more experimenting) when to move; don't jump around too much but don't be afraid to ditch an unruly pileup and get back to the ideal situation of one or two callers at a time. This is also the time when alert QRP stations will get through, although I have seen times when the pileup becomes so well disciplined that you can even ask for QRP and get a quiet background to pick them out (do this only after the initial feeding frenzy has been satisfied).

From the viewpoint of a DX station in a DX contest, or your own situation in Sweepstakes, you don't need to hunt for multipliers as they will generally find you if you are on enough of the time. In my own case, I try to use two beams fed at the same time, one east and one north (it sure was a lesson to me when I couldn't hear you calling me in the CQP because I didn't have the other antenna working!). The idea of a vertical receiving antenna, or at least a contrasting dipole, is one that I'll talk up around the contesting community.

Because you are willing to give out the multiplier by tuning around some of the time, you can choose your own targets then. It's a good idea to alert people to the propagation limitations you talk about in your letters, but if they don't respond that's their problem. If you find you're not getting the responses you want (say because propagation is putting you at a disadvantage) just move on or go back to CQing. You'll find, though, that you can have more control and will get a wider range of responses if you can run your own pileup but keep it under control.

As to frequency choice, many folks feel that one should be on the highest band that is open, although you might also try to find the band that has the highest rate and most comfortable pileups. The highest open bands also have the advantage of skip-zone conditions and symmetrical propagation, so callers can hear you clearly with less QRM from their competitors.

Again, remember that the fact that everyone wants you in contests like Sweepstakes can make a huge, aggravating pileup, but it also means you have available to you a uniquely large number of callers as you manage it well. You sure don't owe anybody anything, but we are all really grateful for the contacts with you. If you can keep your rate around 100/hour during the initial frenzy of the first few hours of a contest, you'll find you will have satisfied the stations that might otherwise get frustrated and impolite.

None of this works from the stateside end, since after the first few hours we typically will go two or three CQ's before getting even one response, but I think it will fit your situation. In the ARRL DX contests coming up, take some time to listen to some of the better DX stations (P4/V, PJ1B, HC8A or HC8N on cw, KP2A) and you'll see these techniques in action. But notice that not all the DX stations do this, only the ones that win!

Steel yourself to ignore the com-

(Letter con't Page 7, Col 1)

plainers and QRMers; they will just go away as you find techniques that work for you to keep the rate up. Don't respond to jammers on the air, just keep plugging away and they'll give up after a few minutes of no response (they're also the last to find you if you QSY!). Also, don't be discouraged by complainers who are speaking out of frustration, just try to persist cheerfully in the knowledge that their complaints arise from the fact that they need you more than you need them, and they have probably never experienced a real pileup such as you are running. I'll be most gratified if these ideas encourage you to hang in there as you develop a style of your own that lets you mow down pileups with great rate and style.

73, Dave Leeson, W6QHS

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TrosterRoster

Once upon a time, new Treasurer George, AB6YL, asked if we could include an envelope with the JUG to try to speed up the paying of membership dues—sort of a Direct Aim at any delinquent types out there. Saves a lot of time and trouble begging for renewals.

So, Jug Pub took a JUG and an envelope to the PO and had it weighed. Behold and lo, the JUG alone weighed 1.2 ounces! JugPub sez, "but we've been mailing it for 5 years like this for one stamp." Clerk sez: "you just never got caught! Sometime they're gonna send 'em back." Sorry George, no envelope.

Plan 2. We go to Kinko's. Do they have any lighter paper? Not in 14 x 17 because lighter crinkles when folded. How about a lighter weight 8 1/2 x 11 insert page? Or, how about five 8 1/2 x 11 lighter weight pages?

OK take samples of the lighter paper back to the PO. Answer: Using lighter insert page, JUG weighs 1.1 ounces. Still overweight. Five lighter weight pages comes to 0.9 ounces.

We got three options which we will deal to the Board to solve in solemn deliberation: 1) Reduce to eight pages. 2) Go to five 8 1/2 x 11 pages, stapled in the corner and stapled again when folded in half. 3) Stay lucky and keep on sending 10 pages.

Seems like a good point at which Ed and Pub can take a small sabbatical, month or so. In the interim, Al, AD6E, has once again "volunteered" and will assume all privileges and duties of Ed and Pub. More of the latter than the former, for sure! We sincerely appreciate his taking over while we're gone. Please get your copy to him on time—helps. Thanks a milli-yun, Al. We leave you with the question of whether or not to check out Jug weight with the PO.

Hamming it Up for Summer



Northern California Contest Club
presents
THE B.O.S.S. CONTEST

(Bottom of Sunspot Cycle)

**Instant Fame Prizes You Never Dreamed of Winning
To Enter**

You don't need to sell subscriptions

You don't need to tear off box tops

You don't need to send money

You DO have to consult your charts or log, neighbors, or Sunspot Guru
then

Pick a Date when the bottom of the sunspot cycle will occur

That's It!

**LAST CALL FOR NCCC MEMBERS TO BE IN THE FOREFRONT
CONTEST SOON TO OPENED WORLD-WIDE ON INTERNET**

Prizes based on age, i.e. number of sunspot cycles in your lifetime

Winners for top three entrants in each category

Prize Chairman well-known authority, N6BT, aka S.C.

Presiding Judge, Sunspot Counter, Al Lotze, W6RQ

Send your estimate of bottom of sunspot cycle
identified by

YEAR, MONTH, DAY, HOUR

with your

name, call, address(fax or e-mail accepted), birth date.

by

e-mail to: jmaxwell@netcom.com

or they may be mailed to JUG at 82 Belbrook Way, Atherton 94027

Get a Grip

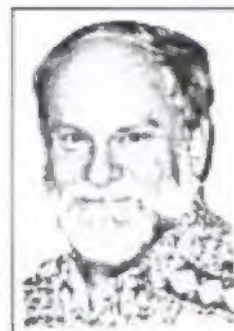
ACT NOW

Next chance won't come until 2007

Income Category	Budget	Actual
Membership dues	37804312	
Advertisements	300	300
General fund contributions	100	406
Vanity callsign contributions	0	0
CQP contributions	0	30
Non-member JUG subscriptions	0	16.50
Total income	4180	5064.50
Expense Category		
JUG publishing & special mailings	(2600)	(3120)
NCCC share of CQP expenses	(500)	(100)
Membership awards	(650)	(712.09)
Visalia Hospitality	(200)	(172.40)
Vanity callsign for club call	(0)	(0)
CQWW, WPX etc. awards		
Contingency	(230)	(70.65)
Self-funding activities (Banquets, badges, etc.)	(0)	(38.51)
Special Xmas banquet appropriation	(0)	(150)
Total expenses	(4180)	(4363.65)
Balance at start of Fiscal Year 94-95		2501.02
Present General Fund Total		3562.66

Treasury Notes

de AB6YL



DUES ARE DUE IN JUNE!

Check the mailing label on your copy of your JUG. If your your membership is paid only through June 1995, it's time to send your 1995-1996 dues. Please use the form below and include all information needed to keep our roster up-to-date.

Name: _____ Call: _____
 Full memberships @ \$24: _____ Associate, Student memberships @ \$12: _____
 Family membership: (\$24 for first member, \$12 for each additional member at same address) _____

Donation to General Fund: _____ Repeater Fund: _____

Address: _____

Home telephone: _____ Business telephone: _____
 Electronic Mail address: _____
 Type: (e.g., Internet, CompuServe, AOL, Prodigy): _____

Do you know someone that might be interested in NCCC membership?
 Call: _____

Cut out for mailing label—>

Send coupon and dues to:
 George Daughters, AB6YL
 1560 Klamath Drive
 Sunnyvale, CA 94087

OAKLAND, CA 94606
2210 Livingston St.
(510) 534-5757
(800) 854-6046

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100W out. (90W TS-60S, 50MHz only) • SSB, CW, AM, FM,
12V Gen. Cov. RX, 6.4 lbs., 7.16 x 2.4 x 9.32"
105 db dynamic range, 100 Mems.
Optional external ant. tuners available (TS-50S only)

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Redwood City, CA 94062